

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. After amending the claims as set forth above, claims 23, 25-36, and 38-42 are now pending in this application.

Applicant wishes to thank the Examiner for the careful consideration given to the claims.

Rejection of claim 31 based on 35 U.S.C. 112

Claim 31 is rejected under 35 U.S.C. 112, second paragraph, because of the term “gel-like.” Claim 31 has been amended to change “gel-like” to “gel.” For at least this reason, favorable reconsideration of the rejection is respectfully requested.

Rejection of claims 23-26, 28, and 31-42 based on McKey

Claims 23-26, 28, and 31-42 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,206,086 (“McKey”). For at least the following reasons, this rejection is traversed.

Claim 23 (as amended) recites, among other things, a heat exchanger comprising: first and second terminating elements; at least one tube comprising a first end region connected to the first terminating element and a second end region connected to the second terminating element; a first tube part connected to the first terminating element; a second tube part connected to the second terminating element and comprising two continuous ring-like elements protruding radially towards the other of the first and second tube parts; and at least one sealing element disposed between the two ring-like elements in a spatial region between the first and second tube parts. The two continuous ring-like elements form at least one chamber between the first tube part and the second tube part. The continuous ring-like elements serve as a support that acts radially for the first and second tube parts. McKey does not teach or suggest this combination of features.

For instance, McKey does not teach two continuous ring-like elements protruding radially towards the other of the first and second tube parts. The PTO asserts that the shell flange 3 and the packing gland 23 of McKey are considered to be the ring-like elements of claim 23. However, no portion of the shell flange 3 and the packing gland 23 protrude radially toward the floating tubesheet 10, the false tubesheet 16, or the bonnet 18 of McKey (which the PTO collectively considers to be the second tube part of claim 23). For example, the packing 24 is considered by the PTO to be disposed between the shell flange 3 and the

packing gland 23 (which the PTO considers to be the two ring-like elements of claim 23). However, the portions of the shell flange 3 and the packing gland 23 adjacent to the packing 24 are not protruding out from anywhere, but the converse, i.e., a recess is formed in the shell flange 3. As no other portion of the shell flange 3 and the packing gland 23 protrudes towards any component that the PTO considers to be the second tube part of claim 23 (i.e., the floating tubesheet 10, the false tubesheet 16, or the bonnet 18 of McKey), McKey does not teach two continuous ring-like elements protruding radially towards the other of the first and second tube parts, and claim 1 is allowable over the prior art.

Also, McKey does not teach or suggest continuous ring-like elements which serve as a support that acts radially for the first and second tube parts. There is no teaching or suggestion that the packing gland 23 of McKey (which the PTO considers to be one of the ring-like elements of claim 23) radially supports anything. Indeed, the packing gland 23 of McKey is used merely for the compression of the packing 24 by means of a bolt 27 securing the packing gland 23 to the shell flange 3. (Column 3, lines 40-46 of McKey.) Because the packing gland 23 of McKey is not a radial support, McKey does not teach two continuous ring-like elements which serve as a support that acts radially for the first and second tube parts, and claim 1 is allowable over the prior art.

Furthermore, the PTO asserts that the bonnet 18 of McKey is both the second terminating element and part of the second tube part of claim 23. (Figure on page 4 of the Office Action.) Such an assertion is improper, and the rejection should be withdrawn for this addition reason.

Claims 24 and 37 have been canceled, which renders the rejections of these claims moot.

Claims 25-26, 28, and 31-42 depend from and contain all the features of claim 23, and are allowable for the same reasons as claim 23, without regard to the further patentable features contained thereon.

For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claims 27 and 29-30 based on McKey and Lucke

Claims 27 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKey in view of U.S. Patent 2,512,748 ("Lucke"). Claims 27 and 29-30 depend from and contain all the features of claim 23. As previously mentioned, McKey does not teach two

continuous ring-like elements protruding radially towards the other of the first and second tube parts or that the two continuous ring-like elements serve as a support that acts radially for the first and second tube parts. Lucke does not cure these deficiencies. Thus, no combination of McKey and Lucke renders claim 23 and its dependent claims 27 and 29-20 unpatentable. For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Conclusion

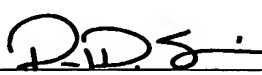
Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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